

ABSTRACT OF THE DISCLOSURE

A vibrator includes: a vibrating body; a driving unit for causing the vibrating body to vibrate in a predetermined vibrating direction; and a driving monitoring unit for detecting vibration displacement in a driving direction of the vibrating body. Stabilization of vibration in the driving direction of the vibrating body is achieved by applying positive feedback control to the driving unit based on the state of the vibration displacement in the driving direction of the vibrating body detected by this driving monitoring unit. The driving monitoring unit is constructed and arranged so as to be provided in a barycentric region of the vibrating body to detect the vibration displacement in the driving direction of the barycentric region of the vibrating body.

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